

July 2015

Osborne County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

A total of 14 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Osborne County economy.¹ These 14 sectors have a total direct output of approximately \$151 million and support 450.1 jobs in Osborne County. Running the model for all 14 sectors simultaneously produces the following results:

Agriculture Contribution in Osborne County

Impact Type ²	Employment	% of Total Employment	Total Value Added ³	% of Gross Regional Product ⁴	Output ⁵	% of Gross Regional Product
Direct Effect	450.1	18%	\$33,711,622	22%	\$151,164,963	100%
Indirect Effect	164.2	7%	\$12,337,819	8%	\$24,217,435	16%
Induced Effect	53.5	2%	\$3,664,519	2%	\$6,772,813	4%
Total Effect	667.8	27%	\$49,713,961	33%	\$182,155,212	120%

As shown in the above table, agriculture, food, and food processing supports 667.8 jobs, or 27% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$182 million, roughly 120% of Gross Region Product (GRP). As noted below in the calculation of Gross Regional Product, imports and institutional sales are subtracted. Therefore, counties that import a relatively large amount of goods and services will have a reduced GRP which may lead to agricultural output being greater than GRP.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 14 agriculture, food, and food processing sectors is approximately \$50 million, or 33% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 33% of the total economy.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting:
https://implan.com/index.php?option=com_content&view=category&id=19

² Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

³ Value Added = Labor Income + Indirect Business Taxes + Other Property Type Income

⁴ GRP = Final Demand of Households + Governments Expenditures + Capital + Exports - Imports - Institutional Sales

⁵ Output = Intermediate Inputs + Value Added

In the top ten by employment, Grain farming is the top employer in the agriculture industry with 129.8 employees. This table also shows the amount of jobs that are created by the agriculture industry in Osborne County.

Top 10 Industries Affected by Employment

Sector Description:	Total Employment	Total Output
Grain farming	129.8	\$37,354,966
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	127.3	\$27,113,294
Wholesale trade.....	60.3	\$11,653,967
All other crop farming.....	59.5	\$6,203,216
Farm machinery and equipment manufacturing.....	29.8	\$18,227,015
Other animal food manufacturing.....	28.9	\$42,287,627
Veterinary services	25.0	\$1,817,773
Truck transportation.....	20.5	\$3,285,239
Dairy cattle and milk production.....	19.8	\$3,030,254
Monetary authorities and depository credit intermediation	15.2	\$2,245,177

The Other animal food manufacturing industry directly contributes approximately \$42 million to Osborne County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

Top 10 Industries Affected by Output

Sector Description:	Total Employment	Total Output
Other animal food manufacturing.....	28.9	\$42,287,627
Grain farming	129.8	\$37,354,966
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	127.3	\$27,113,294
Farm machinery and equipment manufacturing	29.8	\$18,227,015
Wholesale trade.....	60.3	\$11,653,967
Oilseed farming.....	5.3	\$9,469,149
All other crop farming.....	59.5	\$6,203,216
Animal, except poultry, slaughtering.....	6.8	\$4,061,686
Truck transportation.....	20.5	\$3,285,239
Dairy cattle and milk production.....	19.8	\$3,030,254

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture sector and the output they contributed to Osborne County's economy.

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All 105 counties in Kansas have IMPLAN models with an agriculture contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Kansas, the retail sector was omitted.